

# AFCESA A-GRAM

AIR FORCE CIVIL ENGINEER SUPPORT AGENCY



99-44

AUGUST 1999

## THE RECLAIMER/STABILIZER (RS-650)

### SYNOPSIS:

At present, the Air Force has no equipment that can recycle asphalt on site; therefore, it is being disposed of in landfills, where a tipping fee is charged for each load. Environmental directives require the Air Force to reduce landfill material by recycling. Testing of the reclaimer/stabilizer by the Management Equipment Evaluation Program (MEEP) in 1998 showed that it could optimize personnel resources and reduce the production of construction debris.

### APPLICATION TO CE:

There were significant savings realized in disposal fees, material required, reduction in manpower, and per diem cost. An economic analysis was performed comparing cost of conventional demolition and paving with the cost of demolition and paving using the RS-650. The calculations were made using data from the base engineer records for disposal fees, manufacturer guidelines for equipment fuel consumption, and known cost for billeting, per diem, fuel, materials, etc. The analysis was divided into funded and unfunded costs with the

funded cost to include materials, fuel, and per diem and the unfunded costs that are associated with military labor. The detailed economic analysis summary of the **cost savings** is listed below:

1. Funded: USAFA \$74,873; Whiteman AFB \$117,904 Total \$192,777
2. Unfunded: USAFA \$47,144; Whiteman AFB \$48,769 Total \$95,913
3. Total Cost Savings: \$288,690

### RECLAIMER:

The RS-650 is a highly productive, versatile machine which is used in these basic areas: cold-mix, soil stabilization, mining, land clearing, and farming applications. The RS-650 performed well in all areas tested, including in-place stabilization, flexible pavement reclamation, and foamed asphalt cement stabilization of granular base courses. The machine grinds/blends asphalt pavement into base course grade, eliminating the need for removing old pavement and hauling it to a landfill. It blends material together for a stronger bond, injects stabilization material into the mix, and has an 8-foot wide mandrel.

No safety problems were encountered during the evaluation. Normal safety procedures were followed, and no disadvantages were noted.

### SOURCE:

The RS-650 Reclaimer/Stabilizer is manufactured by CMI Corporation, P. O. Box 1985, Oklahoma City OK 73101-1985. The unit description is Self-propelled, heavy-duty, 4-wheel steer, Reclaimer/Stabilizer for Cold-Mix Reclamation and Soil Stabilization. A Caterpillar 3412DIT diesel engine rated at 650 hp powers the unit. The Rotary Cutter Assembly has a cutting width of 96" and a cutting depth of 16", four different speed ranges (101, 130, 160 and 198 rotor rpms). The rotor has 218 tungsten carbide teeth with 19mm 3/4-in. shanks. It has a microprocessor-based control system that automatically maintains cutting depth, cross slope, and travel speed. The engine load sensing system automatically adjusts travel speed to cutting.

### CONTACT:

Mr. Tommy Walker, Project Manager  
DSN 872-4217, Ext 230  
FAX: 872-3537/8557  
Comm 850-882-4217 ext. 230  
E-mail: walkerm@eglin.af.mil

Technical assistance on civil engineer MEEP projects can be obtained from:

MSgt Waldlena Schmidt  
HQ AFCEA/CEOM  
139 Barnes Drive Suite 1  
Tyndall AFB FL 32403-5319  
DSN 523-6378 FAX 523-6488  
Comm 850-283-6378  
E-mail: Waldlena.Schmidt@afcesa.af.mil

